

## ABSTRACT OF THE DISCLOSURE

A method and apparatus for drilling a bore hole into ice by use of a water-heated hemispherical structure of circular cross-section and predetermined diameter for sinking a borehole into the ice following and closing a previously formed pilot bore hole of lesser diameter, and, above it, in axial alignment therewith, an azimuthally circumferential gap for spraying a high pressure disk-shaped upwardly deflected jet of water against the circular wall of the bore hole to increase its diameter beyond the predetermined diameter and to form a smooth bore hole wall surface.

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

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By: Dunker

For: Method of Heat Drilling Holes in Ice  
and Apparatus for Carrying Out the Method

Substitute Specification and Claims per  
Applicant's Amendment Dated 24 September 2007  
without Amendatory Markings